

What is claimed is:

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1. A syringe which comprises:
a syringe body having a chamber for holding a fluid medication;
a needle having a first end and a second end;
5 a needle holder formed with a means for removably attaching
said needle to said syringe body to place said second end of said
needle in fluid communication with said chamber;
a sheath positioned over said needle, said sheath slideably
mounted to said needle holder for movement relative thereto between
10 a first configuration wherein said sheath covers said first end of said
needle, and a second configuration wherein said sheath retracts over
said needle to expose said first end of said needle;
a means for locking said sheath in said first configuration to
prohibit relative movement between said sheath and said needle
15 holder;
a means for unlocking said sheath to allow said sheath to move
into said second configuration; and
a plunger engageable with said chamber of said syringe body to
expel medication from said chamber and through said needle.

20 2. A syringe as recited in claim 1 wherein said means for unlocking
said sheath to allow said sheath to move into said second configuration
comprises a finger grip, said finger grip being slideably mounted on said
syringe body to allow said sheath to be unlocked by movement of said finger
grip relative to said syringe body.

25 3. A syringe as recited in claim 1 further comprising a means for
biasing said sheath into said first configuration.

4. A syringe as recited in claim 3 wherein said biasing means comprises a spring enclosure mounted on said needle holder and a spring disposed within said spring enclosure.

5. A syringe as recited in claim 1 wherein said needle holder is formed with a cylindrical section, said cylindrical section being positioned over said second end of said needle and extending proximal thereto to cover said second end of said needle.

6. A syringe as recited in claim 1 wherein said first end of said needle extends substantially along a first axis and said second end of said needle extends substantially along a second axis, said second axis being substantially parallel to said first axis and distanced therefrom.

7. A syringe assembly as recited in claim 6 wherein said sheath is substantially cylindrically shaped and said syringe further comprises a means for maintaining said sheath substantially centered on said first axis.

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8. A syringe as recited in claim 4 wherein said means for locking said sheath in said first configuration comprises a lock formed with a lock body and a locking tab, said locking tab extending from said lock body to create a hinged connection between said locking tab and said lock body, said lock body attached to said sheath and said locking tab for engagement with said spring enclosure to prohibit distal movement of said sheath relative to said needle holder.

9. A syringe as recited in claim 4 wherein said needle, said needle holder, said sheath, said spring enclosure, said spring and said locking tab are assembled into an integral cartridge assembly that can be removably attached to said syringe body by attaching said needle holder to said syringe body.

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10. A syringe which comprises:
a syringe body having a chamber for holding a medicament;
a needle having a first end for releasing fluid and a second end
for receiving fluid from said chamber;

5 a sheath slideably mounted on said needle for movement
relative thereto, said sheath having a hinged tab extending from said
sheath for movement between a first configuration to prohibit relative
movement between said sheath and said needle and a second
configuration to allow relative movement between said sheath and said
needle;

10 a finger grip slideably mounted on said syringe body, said finger
grip being formed with a tang for biasing said tab into said second
configuration to allow relative movement between said sheath and said
needle; and

15 a plunger engageable with said chamber of said syringe body to
expel a portion of said medicament from said chamber and through
said needle.

11. A syringe as recited in claim 10 further comprising a means for
biasing said sheath into said first configuration.

20 12. A syringe as recited in claim 11 wherein said biasing means
comprises a spring enclosure attached to said needle and a spring disposed
within said spring enclosure.

25 13. A syringe as recited in claim 10 wherein said first end of said
needle extends substantially along a first axis and said second end of said
needle extends substantially along a second axis, said second axis being
substantially parallel to said first axis and distanced therefrom.

14. A syringe assembly as recited in claim 13 wherein said sheath is substantially cylindrically shaped and said syringe further comprises a means for maintaining said sheath substantially centered on said first axis.

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15. A method for using a syringe comprising the steps of:
providing a syringe body having a chamber holding a fluid medication;
slideably mounting a finger grip formed with a distal end onto said syringe body, said finger grip formed with a tang extending away from said syringe body at said distal end of said finger grip;
10 providing a needle cartridge having a needle formed with a first end and a second end, a needle holder for holding said needle, a sheath slideably mounted to said needle holder and locked in a position over said first end of said needle by a locking tab extending from said sheath, said locking tab attached to said sheath to create a hinged connection therebetween;
15 attaching said needle cartridge to said syringe body to place said second end of said needle in fluid communication with said chamber;
rotating said needle cartridge relative to said syringe body to align said tang into a position that is adjacent and distal to said locking tab; and
20 sliding said finger grip relative to said syringe body to contact said locking tab with said tang and pivot said locking tab about said hinge connection to unlock said sheath and allow movement of said sheath relative to said needle.
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16. A method as recited in claim 15 further comprising the step of:
inserting said first end of said needle into a patient.

17. A method as recited in claim 16 further comprising the step of: depressing a plunger into said chamber of said syringe body to expel medication from said chamber and through said needle.

5 18. A method as recited in claim 17 further comprising the steps of: withdrawing said first end of said needle from said patient; and releasing said finger grip to move said sheath over said first end of said needle and lock said sheath over said first end of said needle.

10 19. A method as recited in claim 18 further comprising the step of: detaching said needle cartridge from said syringe body.

20. A method as recited in claim 19 further comprising the step of: autoclaving said syringe body for reuse.